



NUMBER 4800 (Supersedes 87.530-F14)

Blanose™ refined carboxymethylcellulose

Description

Blanose refined carboxymethylcellulose (CMC) is a purified salt of sodiumcarboxymethylcellulose with a minimum CMC rate of 98%. Blanose refined CMC is a water soluble, anionic polymer that acts as a thickening agent, rheological modifier, binding agent, stabilizer, protective colloid, film-forming agent, and water retention agent in a range of industrial applications.

Types and Typical Properties

In order to satisfy the various needs of different segments of the market, Blanose refined CMC is available in two degrees of substitution (DS) and in many viscosities. The typical levels of substitution and ranges of viscosity are indicated below. In general, higher degrees of substitution improve compatibility with other system components.

Degree of Substitution. Method: MA 304.1506A

Type of DS	Substitution Limits	Sodium Rate, %
7 ^(a)	0.65 to 0.90	7.0 – 8.9
9	0.80 to 0.95	8.2 – 9.3

^(a) certain grades have a narrower degree of substitution

Typical Viscosity Ranges. Method MA 304.1001A

Grades DS7	Grades DS9	Concentration %	Range 25°C mPa-s	Settings Brookfield LVF Needle no.	tpm
7H9		1	4,000 – 9,000	4	30
7H4	9H4	1	2,500 – 4,500	4	30
7H		1	1,500 – 2,500	3	30
7M65		2	3,000 – 6,500	4	30
7M31		2	1,500 – 3,100	3	30
7M		2	300 – 600	2	30
7M2	9M2	2	100 – 200	2	60
7M1		2	50 – 100	1	60
7L		2	25 – 50	1	60
7L2		6	120 – 280	2	60
7L1		6	90 – 130	2	60
7EL		6	35 – 60	1	60
7UL		6	10 – 25	1	60

This table indicates the levels of viscosity that are available, but all of the products are not available in each size. If you have specific requirements, please contact a local Ashland Inc. representative.



Other Typical Properties of Blanose™ refined CMC

Property	Limits	Method
Purity, 100 – (NaCl + Na glycolate), %	98 min.	MA 304.1501A/1502A
Apparent density, g/cm ³	0.55 – 1.00	MA 304.1607A
Moisture at packaging, %	8 max.	MA 304.1600A
pH of the solutions,		MA 304.1004A
All L types, at 2%	5.0 – 8.5	
All M types, at 1%	6.5 – 8.5	
All H types, at 1%	6.5 – 8.5	

Size Grading of Blanose refined CMC. Method 304.1602A

Blanose refined CMC is available in the following size gradings:

Designation	Description	Limitation		Sieve Opening	
				mm	ASTM No.
X	Fine	0.5% max. 80% min.	Retained	0.250	60
			Passed	0.075	200
-	Normal	1% max. 10% max.	Retained	0.600	30
			Retained	0.425	40
C	Granulated	0% 50% max. 50% max. 15% max.	Retained	1.70	12
			Retained	0.85	20
			Passed	0.425	40
			Passed	0.18	80
C1	Granulated	0% 50% max. 50% max.	Retained	1.70	12
			Retained	0.85	20
			Passed	0.18	80
C2	Granulated	0% 10% max.	Retained	1.70	12
			Passed	0.18	80

Properties and Applications

The properties of Blanose refined CMC are used in many types of industries to improve certain products.

- Paper and cardboard: Blanose refined CMC is used as an additive to improve resistance in the dry state and wet state, as a refining additive, solvent and grease barrier, and as a porosity-reducing additive. Blanose refined CMC is also used as a rheology control agent and aqueous binder for paints, preparations for film presses, size presses, and coatings, and as an additive for carbonless paper.
- Textile industry: It is used in the textile industry as an additive for sizing agents and finishing agents.
- Adhesives: It is used as an additive in adhesives for wallpaper bonding and carpet backing coating.

It is also used in various applications such as welding electrodes, planographic printing for rubber coating of boards, and as a fountain solution in water-based paints, for seed coating, emulsion polymerization, detergents, dry batteries, drilling, and public works (splitting method).

Packaging and Storage

Blanose refined CMC is packaged in 25kg sacks (with the exception of Blanose SB, which is packaged in 20kg sacks), delivered in pallets of 40 sacks each. Blanose refined CMC is a non-perishable powder. It is recommended to be used in a FIFO rotation (first in, first out). This product must be stored in a clean, dry location in its original package and away from any heat source. It is hygroscopic. The package has been chosen to prevent the ingress of moisture, but the water content of the bagged product may increase if it is not stored in a dry location.

Safety

We recommend that you read and understand the Safety Data Sheet (MSDS) before using this product.

ASHLAND.